

X. Polarizers

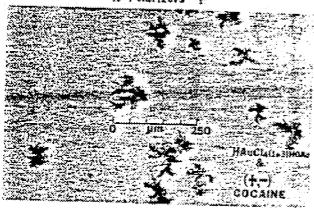


FIG. 3-Gold chloride with 1+, +1-eocaine.

TABLE 3-Abundance ratios.

| Compound | sn/e '74:'96 | m/e 152:150 |
|------------------|--------------|-------------|
| Cocsine | 1 € | § 3 |
| Seudococaine | €1 | \$~2 3≈7 |
| Mococaine | <1 | 2-16 |
| scudosilococaine | >1 | 3-3 |

122, 187, 198, and 272 are at a lower relative abundance and the molecular ion $(m/e \ \,)03)$ is at a higher relative abundance than the corresponding ions of allococuine.

The mass spectral data for the cocaines were obtained by direct insertion techniques rather than via a GLC interface. This was necessitated by a tendency of the less stable diastereoisomers, in particular pseudosilococaine, to thermally eliminate the elements of benzoic acid. The product of this thermal elimination is 2-cachomethoxytropidine (anhydroecyonine methyl ester). The electron impact fragmentation of this compound results in a spectrum with an m/e 152 base peak (Fig. 12). Since the differentiation of the diastereoisomeric cocaines relies heavily on the relative abundance of the ion at m/e 152, thermal elimination in the GLC/MS interface could interfere with that assessment.